

BEFORE THE UTAH WATER QUALITY BOARD

DEPARTMENT OF ENVIRONMENTAL QUALITY

IN THE MATTER OF U.S. OIL SANDS  
PR SPRING TAR SANDS PROJECT No. WQ PR-11-001  
GROUND WATER DISCHARGE PERMIT-  
BY-RULE

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HEARING PROCEEDINGS  
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LOCATION: Department of Environmental Quality  
195 North 1950 West  
Salt Lake City, Utah  
  
DATE: Wednesday, October 24, 2012  
  
TIME: 9:54 a.m.  
  
REPORTED BY: Scott M. Knight, RPR

## APPEARANCES

UTAH WATER QUALITY BOARD:

PAULA DOUGHTY, CHAIR

STEVEN P. SIMPSON, VICE CHAIR

MYRON E. BATEMAN

CLYDE L. BUNKER

MERRITT K. FREY

DARRELL H. MENSEL

LELAND J. MYERS

NEAL L. PEACOCK

GREGORY L. ROWLEY

AMANDA SMITH

DANIEL C. SNARR

JEFFERY L. TUCKER

WALTER L. BAKER, EXECUTIVE SECRETARY (Present for  
the hearing but not seated with the Board)

FOR UTAH WATER QUALITY BOARD:

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Hearing Proceedings

October 24, 2012

## PROCEEDINGS

MS. McEWAN: I'm Kim McEwan. And I will be representing the Water Quality Board in this matter. The next Water Quality Board agenda item is in the matter of U.S. Oil Sands Tar Sands Project Ground Water Discharge Permit-By-Rule, No. WQ PR-11-001. The parties and their representatives in this proceeding are the executive secretary, represented by Assistant Attorney General Paul McConkie; Living Rivers, represented by Rob Dubuc and Joro Walker; and U.S. Oil Sands, represented by Chris Hogle and Benjamin Machlis. As I stated earlier, the Board is represented by Assistant Attorney General Kimberlee McEwan.

Board members have received a copy of the administrative law judge's memorandum, findings of fact, conclusions of law and recommended order dated August 28, 2012. In addition, Board members have received a CD of the administrative record of the adjudicative proceeding before the administrative law judge. The ALJ issued the memorandum and recommended order after a two-day

1 evidentiary hearing held in May of 2012.

2           The purpose of this agenda item is for  
3 the Board to hear oral argument from the parties  
4 and to determine whether to approve of  
5 modifications, to--or to disapprove ALJ's  
6 memorandum and recommended order or to remand the  
7 matter back to the ALJ with further actions as  
8 directed by the Board. I wish to emphasize that  
9 this is a judicial proceeding. As such, only  
10 parties will be allowed to address the Board.  
11 Board members may ask questions of any party but  
12 will not take comments from any members of the  
13 public. The Board is performing a judicial  
14 function and must rely solely on the record and the  
15 oral arguments in arriving at its decision. The  
16 parties may refer to evidence already in the record  
17 and may give legal arguments in response to  
18 questions.

19           The parties will have 15 minutes as  
20 timed by the staff to address the Board. The order  
21 of presentation will be as follows: Mr. McConkie  
22 for the executive secretary, Mr. Dubuc and/or Ms.  
23 Walker for Living Rivers, and Mr. Hogle and/or Mr.  
24 Machlis for U.S. Oil Sands. Following oral  
25 argument, there will be discussion among Board

1 members. And following that discussion, the Chair  
2 will entertain discussions. Following Board  
3 action, Counsel for the Board will draft an order  
4 memorializing the Board's decision and the parties'  
5 procedural rights.

6 I note to Board members in making a  
7 motion--I know we'll be bringing this up later--but  
8 specify in the motion whether you want to approve  
9 or disapprove all or part of the recommended  
10 decision, of the recommended order, and identify  
11 relevant parts. That can be complicated. And  
12 we'll talk about that later when we get to that  
13 point.

14 And if there aren't any questions just  
15 about procedure--and if not, we will just turn the  
16 time over to Mr. McConkie.

17 MS. DOUGHTY: Do we have a clock?

18 UNIDENTIFIED SPEAKER: We have a timer  
19 over there.

20 MS. DOUGHTY: We have a timer over  
21 there. Okay. So, each representative will be given  
22 15 minutes. And in between we'll be taking a few  
23 comments from Board members, if there are any.

24 MR. McCONKIE: Ladies and gentlemen of  
25 the Board, good morning. Thank you for being here

1 today. This is obviously a matter of substantial  
2 interest. And I appreciate the seriousness that  
3 the Board--I know the Board takes responsibilities  
4 very seriously.

5 MS. DOUGHTY: Mr. McConkie, sorry to  
6 jump in. It's hard to hear you. And I know that  
7 cordless mike is a little louder. I don't know if  
8 you want to use that.

9 MR. McCONKIE: That might be better.

10 On March 4, the executive secretary  
11 determined that a tar sands mining project in the  
12 Uinta Basin qualified for permit-by-rule status  
13 under Utah Administrative Code R317-6-6.2(A)(25)  
14 based on the de minimis potential effect on ground  
15 water quality. On May--on February 15, 2011, the  
16 executive secretary determined that the proposed  
17 changes to the tar sands mining project did not  
18 warrant modification under revocation of the 2008  
19 decision. Petitioner filed a challenge to the 2011  
20 modification decision. An administrative law judge  
21 was assigned and two-day--as Ms. McEwan stated, a  
22 two-day hearing was held on May 17, 2012. And then  
23 pursuant to rule, the administrative law judge  
24 prepared a recommended decision that includes  
25 written findings of fact and conclusions of law.

1 Now, you as the Board are the final  
2 decision maker on this. The--in its request for  
3 agency action, the release that Living Rivers was  
4 asking for was that the permit-by-rule be remanded  
5 and that DWQ should require a ground water permit  
6 application be filed under 317-6-6.3. Any time  
7 request like that is--or relief like that is  
8 requested, we need to look at the factual and  
9 regulatory basis to remand the permit-by-rule.

10 I'm just going to put up the rules, the  
11 administrative rules, which govern this particular  
12 administrative action. The first one is  
13 R317-6-6.1, which basically states that a facility  
14 that's modified or built needs to be permit-by-rule  
15 or it needs to have a ground water discharge  
16 permit.

17 The next rule--and this is a rule that  
18 this PR springs project was permitted by rule under  
19 is 6.2(A)(25), which states--it's the de minimis  
20 requirement, which states that facilities and  
21 modifications which the executive secretary  
22 determines, after review of the application, will  
23 have a de minimis actual or potential effect on  
24 ground water quality. This is the rule that the  
25 executive secretary based the current rule on.



1                   And then we have R317-6.1(c), which is  
2                   the rule that basically states that the executive  
3                   secretary may require a permit by rule facility  
4                   to--at any time to submit a ground water discharge  
5                   permit application if it meets certain criteria, if  
6                   there's a reason to do so.

7                   And so basically, the question I'd ask  
8                   the Board to keep in mind throughout this whole  
9                   thing is what would be the factual and regulatory  
10                  basis to remand this permit-by-rule, and also what  
11                  would be the purpose of remanding this  
12                  permit-by-rule based upon the record.

13                  I know that the Board has received a  
14                  recommended decision. You know, the ALJ in this  
15                  case could--after the hearing, the parties had the  
16                  opportunity to submit proposed findings of fact and  
17                  conclusions of law to the ALJ. And the ALJ could  
18                  have done, as trial judges typically do--could have  
19                  adopted findings and conclusions that she agreed  
20                  with as her own, findings and conclusions as  
21                  recommended decisions. The ALJ didn't do that in  
22                  this case.

23                  Instead, what she did was she made us  
24                  wait over three months for the decision as she went  
25                  through the record, applying the facts to the law.

1 And so what the Board has now is a very detailed  
2 40-page decision where the ALJ went through and  
3 cited the record and cited her analysis and came up  
4 with findings of fact and conclusions of law.

5 One of the real benefits of the  
6 recommended decision in this case is that the ALJ  
7 didn't just put findings of fact and conclusions of  
8 law and then just cite the record. The ALJ  
9 included her analysis. And I think that's very  
10 helpful to the Board, because the Board can go back  
11 and review that and see how the executive--how the  
12 ALJ arrived at her conclusions.

13 Okay. One of the questions in this  
14 case is: What's the record and what is the record  
15 that the Board should consider? One of the  
16 contentions that Living Rivers is making is that  
17 the Board should be limited to just reviewing the  
18 record that the executive--the secretary had before  
19 him at the time he made the decision. Well, that's  
20 not the record in this case.

21 The final agency record is defined by  
22 rule. And that's in R305-6-208: The agency record  
23 shall consist of an initial order and also an  
24 adjudicative record. And as you can see, the  
25 rule--it defines the initial record. And if we

1 went to R305-6-208(2), you would see what consists  
2 of the initial record, which is essentially what  
3 the executive secretary had before him at the time  
4 he made his decision. And then he had the  
5 adjudicative record. And that's all discovery we  
6 went through, litigation, putting on witnesses,  
7 taking evidence.

8 Early on in this process the ALJ  
9 determined that the petitioner was entitled to a  
10 trial-type proceeding. And that would include  
11 evidence not only of those acts that we're  
12 recording that the executive secretary had at the  
13 time he made his determination. It's important for  
14 what the Board is being asked to do in this case  
15 to have all the relevant evidence, because you're  
16 the fact finder. You're determining whether this  
17 facility out there in the Uinta Basin should be  
18 permitted by rule or whether it should be required  
19 to have a ground water discharge permit.

20 Mark Novak testified--one of the things  
21 that Living Rivers is saying--that the Division  
22 should have required a permit discharge or an  
23 application for a ground water discharge permit.  
24 Mark Novak testified that the application submitted  
25 by the company was equivalent of what the rules

1 would require in a ground water discharge permit  
2 application. And we spent a lot of time with Mark  
3 on the witness stand going through each one of  
4 those requirements, what would have been required  
5 had there been a discharge permit application.

6 The only thing that wasn't included in  
7 that was ground water sampling, because ground  
8 water couldn't be located to sample. Mark Novak  
9 and Rob Herbert from the Ground Water Protection  
10 Section testified that the regulatory choice that  
11 they were facing was either issue a permit-by-rule  
12 or require a ground water discharge permit. The  
13 common theme in their testimony was, in order to  
14 have ground water discharge--in order to have a  
15 ground water discharge permit, you need to have  
16 monitoring points. And so they were out there  
17 looking for ground water. And the record is full  
18 of all the evidence and all the efforts that were  
19 made to locate ground water so they could determine  
20 whether or not there could even be a ground water  
21 discharge permit.

22 In their request for agency action,  
23 Living Rivers stated that because it is not  
24 supported by evidence in the record or otherwise,  
25 DWQ's permit-by-rule decision is arbitrary,

1 capricious, and contrary to agency rule. Well, you  
2 can look at the record and make your own decision  
3 about whether or not the determination was  
4 arbitrary, capricious, and contrary to agency rule.  
5 Right there, Living Rivers is basically stating  
6 what the standard is. And the standard is evidence  
7 in the record or otherwise. Now they're trying to  
8 limit that and kind of take that "otherwise" out of  
9 it. And I suppose what they're referring to there  
10 is the initial record.

11 The standard review in this case is  
12 whether the executive secretary--whether this is  
13 supported by substantial evidence when viewed in  
14 light of the whole record.

15 Okay. This is the mine site  
16 (indicating). This shows what it looks like out  
17 there in Uintah County. You can see--basically the  
18 affected area of the project will consist of 213  
19 acres leased from SITLA lands. The project will  
20 consist of open pit mining and tar sands,  
21 extraction of bitumen using a citrus-based  
22 d-limonene and storage of processed sands,  
23 processed fines, and waste rock in the mine. And  
24 the area--the additional storage areas will total  
25 70 acres in size. That kind of gives you an idea

1 of what we're looking at out there.

2 Okay. In 2011, Living Rivers went out  
3 and did a drilling project. Now, this drilling  
4 project was referenced in 2008 demonstration. It  
5 was something that they had committed to do--to do  
6 even additional investigation for ground water,  
7 because they were out there looking for ground  
8 water. This is something that Living Rivers wants  
9 to keep out, because they say this wasn't before  
10 the executive secretary when he made his  
11 determination. The ALJ found this to be very  
12 persuasive, because basically it really shows  
13 exactly what we have. And it confirms everything  
14 that they found out there when they couldn't find  
15 ground water.

16 What this shows is that there were 180  
17 holes in and around the mine site with a dense grid  
18 of 55 holes within the project area up to 305 feet  
19 in depth, which is more than twice the depth to  
20 which U.S. Oil Sands will mine. So, it basically  
21 Swiss cheesed the actual project area with 55 holes  
22 about 400 feet apart. And they found no water.  
23 None.

24 They also went out and drilled five  
25 holes near the project area to depths below 1,500

1 feet to serve the water needs. And they found--  
2 they didn't find water until 1,830 feet.

3 Basically what I want to do right now  
4 is quickly buzz--I'm running out of time--I want to  
5 quickly address Living Rivers' claim that the  
6 executive secretary and the ALJ applied the wrong  
7 ground water definition. Basically what the  
8 executive secretary did is applied the ground water  
9 definition in the ground water protection rules.  
10 That's what they do. They apply the rules; and  
11 they apply the definition of ground water and  
12 aquifer in ground water protection rules.

13 You're going to hear a lot of  
14 testimony--or a lot of argument from Living Rivers  
15 today that they should have applied--that what  
16 we're really talking about is waters of the State--  
17 and any underground water, no matter what the  
18 quantity--even if there's a cup of water underneath  
19 the ground, it's included somehow in this  
20 permit-by-review. That's not how it works. That's  
21 not how the program works. Ground Water Protection  
22 Section, when they're asked to do a permit-by-rule  
23 review, they apply the ground--the Board's ground  
24 water protection rules. And there's a reason why  
25 ground water and aquifers aren't defined, because

1 the definition of waters of the State is just way  
2 too general.

3 And so when they're making their  
4 argument about this--and they go through this whole  
5 thing, this whole exercise, talking about waters of  
6 the State--think about whether or not this is  
7 even--this is just an academic process, an academic  
8 exercise, because there's no water. No water at  
9 all has been found, of no quantity out there. So,  
10 they can say all they want that they're not  
11 applying the right standard, but no water at all  
12 has been found.

13 One of the important things is that the  
14 permit-by-rule letters has this caveat language  
15 that if additional information is found, then the  
16 executive secretary will review it and determine  
17 whether or not a ground water discharge--or whether  
18 or not a ground water discharge permit needs to be  
19 required. So, these permit-by-rules--and this is  
20 very important in this case, the permit-by-rules  
21 are--this is an ongoing evaluation. And they're  
22 constantly evaluating whether or not additional--  
23 whether or not ground water is found and whether or  
24 not a permit-by-rule--or a ground water discharge  
25 permit is required.



1 Another point they make is with regard  
2 to--and because I'm out of time--I only have 30  
3 seconds left--one of the things that I would ask  
4 you to do is go to the findings--go to the ALJ's  
5 findings of fact on this issue of the testing. One  
6 of the things they say is the testing was faulty.  
7 We have a certification from the lab that all of  
8 the data is acceptable as represented. So, I'd ask  
9 you to take a look at the record, also with regard  
10 to the testing--

11 (Timing beeper sounds.)

12 MR. McCONKIE: The executive secretary  
13 is going to--if I could have about ten seconds--the  
14 executive secretary is going to require the company  
15 to provide additional testing. When they produce  
16 tailings, those tailings are going to be evaluated  
17 to satisfy the Division.

18 MS. DOUGHTY: Thank you.

19 Are there any members of the Board that  
20 have any questions for Mr. McConkie?

21 MR. MENSEL: I was just curious. You  
22 showed a definition of ground water there--

23 MR. McCONKIE: Yes.

24 MR. MENSEL: --earlier. It did not--as  
25 I read it, it did not specify a minimum or a

1 limit, a lower limit. There's no amount. There's  
2 no way to say there's a limit, a lower limit. So,  
3 if you said that-- you criticized Living Rivers for  
4 saying that even a cup would count. But the fact  
5 is, I don't see why a cup wouldn't. I mean, maybe  
6 a cup is impractical and silly, but I don't see a  
7 lower limit here.

8 MR. McCONKIE: Well, there's not a lower  
9 limit. Basically what you have to do is you have to  
10 apply the--you have to apply these definitions  
11 and--talks about a zone of saturation and then  
12 talks about--then they go to the definition of  
13 aquifer. What they're doing into is going out  
14 there looking for aquifers. And then it talks  
15 about an aquifer being a geologic formation that  
16 contains sufficiently saturated permeable material  
17 to yield useable quantities of water to wells and  
18 springs. So, I guess we're talking about  
19 quantities, that that would be something that they  
20 would look at.

21 MR. MENSEL: But does the ground water  
22 discharge permit require that there be identified  
23 an aquifer or that there merely be identified  
24 ground water? Because there are two different  
25 definitions there.

1 MR. McCONKIE: I think permit--I think  
2 it kind of comes back to what they're looking for  
3 out there. They're looking for any ground water  
4 that they could monitor in order to administer a  
5 ground water discharge permit, especially what  
6 they're looking for--they were looking for any  
7 ground water. And if they found any ground water  
8 out there, they would have evaluated it to  
9 determine whether a ground water discharge permit  
10 needed to be required in this case. And they  
11 didn't find that.

12 And then when they did the 2011--when  
13 they saw the 2011 drilling results, basically what  
14 that did is it confirmed everything that they  
15 already had concluded about the site.

16 And they still hadn't ruled out--it's a  
17 mischaracterization of the testimony of Mr. Herbert  
18 and Mr. Novak to say that they acknowledge that  
19 there's ground water out there. Basically what  
20 they said is they can't rule it out. They can't  
21 rule out at some point in the future ground water  
22 might appear out there at that site. And that's  
23 why they relied upon this language in the  
24 permit-by-rule letter, that re-opener language,  
25 that if they ever do find any ground water, then

1 they'll evaluate that and determine whether or not  
2 it's appropriate for--still appropriate for  
3 permit-by-rule.

4 MS. DOUGHTY: Do you have a question?

5 MR. SIMPSON: I do.

6 The ALJ's report indicates that this is  
7 on an interfluve, a large area between two  
8 drainages. What are the closest drainages where  
9 water has been identified, or do you know?

10 MR. McCONKIE: I know that there's a  
11 well that's been identified. The PR Springs Well,  
12 which is almost a mile away. As far as a  
13 drainage--I don't know if Rob Herbert or Mark Novak  
14 are here to answer that question. I'd have to  
15 probably look in the record on that. They'd be in  
16 a better position. I'm sure they could answer that  
17 question.

18 But it's--but what we do know is that  
19 this site is up on the Tavaputs Plateau. And  
20 that's where the project site is. And right next  
21 to it, if you look to the--right there, kind of the  
22 bottom there (indicating), that's Main Canyon.  
23 Again, I can't answer where . . .

24 MR. SIMPSON: In looking at those--at  
25 that map, I was curious whether those, in fact, are

1 areas where ground water has been found. And,  
2 apparently, they're not.

3 MR. McCONKIE: I think that's right.

4 MR. SIMPSON: Ground water.

5 MS. DOUGHTY: Leland, do you have a  
6 question?

7 MR. MYERS: Yeah.

8 Going back to the definition, because  
9 it's important to me on what constitutes ground  
10 water. When I read that sentence, it means  
11 subsurface water in the zone of saturation. To me,  
12 as an engineer, my assumption is that that means  
13 you have to have water in between the particles  
14 filled in the voids. And so if you don't have  
15 free-flowing water in the voids, the presence of  
16 moist soil would not constitute ground water. Is  
17 that correct, in your interpretation?

18 MR. McCONKIE: I think that's correct.

19 MR. MYERS: So, it's the free-flowing  
20 water in the voids that would constitute ground  
21 water or water in the zone of saturation. Is that  
22 correct?

23 MR. McCONKIE: Yes.

24 MS. DOUGHTY: Thank you.

25 Any other questions?

1 Merritt?

2 MS. FREY: Just to be clear, so the  
3 definition we're working with here is ground water,  
4 not aquifer.

5 MR. McCONKIE: Well, aquifers also  
6 apply, because ground water--there needs to be an  
7 aquifer for there to be ground water. Even perched  
8 ground water is in a perched aquifer. And so I  
9 think both definitions. And I think the  
10 hydrogeologist might be better one to answer some  
11 of these technical questions. But both of these  
12 definitions were applied.

13 MS. FREY: I have one other question.  
14 This is slightly different. But de minimis is kind  
15 of the operative --used here. Has that ever been  
16 defined at all, de minimus?

17 MR. McCONKIE: Well, Mark Novak in his  
18 testimony defined de minimis as minimal or  
19 negligible. And it is-- it's kind of one of those  
20 definitions that they just like added and said--I  
21 think it's even hard to find in a dictionary, but  
22 that's a definition he applied.

23 MS. DOUGHTY: Did you have another  
24 question?

25 MR. MYERS: I just want to follow up on

1       that again. So, again, in the zone of saturation,  
2       I'm assuming that has a--there's a relative size to  
3       that. So, if I take a gallon of water and I pour  
4       it on the top of the soil, I will have immediate  
5       saturation at the point. But that amount of water  
6       is de minimis, I would assume, in the entire  
7       picture of the ground water system, so that it has  
8       to be--again, if ground water is to exist, there  
9       has to be widespread significance to it. It can't  
10      be just a very localized. It has to be like a  
11      perched water table rather than simply saturating  
12      one particular point.

13               MR. McCONKIE: Well, I'm not sure that  
14      that's right. I think they were out there looking  
15      for any ground water. They were looking for  
16      perched ground water. Sometimes perched ground  
17      water might be--you know, one of the things they  
18      ran into--and this is one of the factors they cited  
19      in their March 2008 PBR letter--they cited  
20      basically the definition of Price and Miller, that  
21      what you can expect out in this area. And then  
22      basically what that was, it was describing in this  
23      general area and that part of the Uinta Basin you  
24      might run into laterally discontinuous perched  
25      sandstone lenses. Some of that's just moisture.

1 Some of it you might kind of find a pocket of  
2 perched ground water. That's what they were  
3 looking for.

4 And I think you could run into pockets  
5 out there. And that's what the Division's looking  
6 for. They didn't even find that. If they were able  
7 to find those, I think it's something they would  
8 take a look at and apply that to their  
9 permit-by-rule determination. But I think that's  
10 the key in this case. They weren't able to find--in  
11 all the drilling that was done out there, all the  
12 searching, they were unable to find even that. All  
13 we have is this reference in Price and Miller to  
14 what it could be expected to be found out in that  
15 area of the region. And so--and that's why this is  
16 an ongoing evaluation.

17 MS. DOUGHTY: Okay. Thank you.

18 Any other questions?

19 MR. SIMPSON: I have a couple questions,  
20 actually. You referenced a well. And there was a  
21 well noted on the drilling map. Can you explain--  
22 let's see. Right there before R061 that indicates  
23 a well. Can you explain that? Do you want me to  
24 go point . . .

25 Right there (indicating).



1 MR. McCONKIE: That's Well Ridge. Is  
2 that where you're talking?

3 MR. SIMPSON: Sorry. I didn't see the  
4 ridge hiding behind R047. And this is called PR  
5 Spring. Is there a spring in the--

6 MR. McCONKIE: About a mile away  
7 there's--that's in a different water table.

8 MR. SIMPSON: Okay.

9 MR. McCONKIE: But it's--but there is  
10 about a mile away--is PR Spring. But that's--I  
11 don't believe that anybody's saying that PR Spring  
12 is impacted by this project.

13 MS. DOUGHTY: Any other questions?

14 Okay. Thank you, Mr. McConkie.

15 MR. McCONKIE: Okay.

16 MS. DOUGHTY: Next time for oral  
17 arguments we have Charles Dubuc. He represents  
18 Living Rivers.

19 Do you have a presentation or just--

20 MR. DUBUC: No. Could we arrange that  
21 map?

22 MS. DOUGHTY: A few seconds.

23 MR. DUBUC: Introducing evidence.

24 MR. MENSEL: Just a clarification.

25 MS. DOUGHTY: Are you ready?

1 MR. DUBUC: I am.

2 MS. DOUGHTY: Okay. Go ahead. Start  
3 the clock.

4 MR. DUBUC: Morning. My name is Rob  
5 Dubuc. And I represent Living Rivers in this  
6 matter. This is, I suppose, a historic occasion,  
7 because in the future the Water Quality Board, like  
8 other DEQ boards, won't be sitting in review of  
9 challenges such as this one.

10 At one point in time, the Board itself  
11 was tabbed with conducting hearings regarding  
12 challenges to a water quality permit. And the  
13 Board would have made its decision based on  
14 firsthand review of the evidence. In this case,  
15 that evidence was gathered for you by the ALJ. And  
16 she has presented you with her recommendation and  
17 how you should decide this challenge based on her  
18 review of that evidence. You may be wondering what  
19 type of deference you owe her order. And the  
20 answer is, you don't owe any deference. The  
21 recommended order is just that--a recommendation.

22 Currently, in making her recommendation,  
23 the ALJ spent a great deal of time and effort  
24 sifting through the record and analyzing the  
25 evidence and the legal briefs that have been filed.

1 But you have complete discretion to accept or  
2 reject that recommendation. To modify the  
3 recommendation in some way would remand the  
4 recommendation back to the ALJ for some additional  
5 work. Ultimately, the decision on what to do with  
6 the recommendation is yours and yours alone, based  
7 on a proper application of a law and to facts in  
8 this case.

9           You may be wondering why the ground  
10 water in the area of the mine site matters. This  
11 area at stake east of Desolation Canyon and up  
12 behind the Book Cliffs is home to many rare plants  
13 and is used by migratory wildlife species that  
14 depend on local water resources. Most visible  
15 wildlife use in the area of the mine are large  
16 populations of deer and elk that migrate through  
17 the area. The abundant wildlife in this relatively  
18 undisturbed region led to the formation of the Book  
19 Cliffs Conservation and-- Initiative, in  
20 cooperative effort by private and the government  
21 entities, to protect critical wildlife habitat in  
22 the southeast and Uinta Basin.

23           As a result of this initiative, the  
24 Division of Wildlife Resources has spent millions  
25 of sportsman-generated dollars to restore this

1 habitat. And today the Book Cliffs is considered  
2 one of the greatest big game hunting areas in the  
3 world. As in any semiarid climate, any water  
4 resource, regardless of size, is important to area  
5 wildlife.

6 I'd also like to thank you for taking  
7 the time and effort to sit and view this challenge.  
8 As we're all aware, there's a massive amount of  
9 evidence in the record, and working your way  
10 through all that data in preparation for making  
11 your decision has been no small task. Hopefully,  
12 my remarks this morning will make it less rather  
13 than more complicated for you. And I invite you to  
14 stop me at any time if you have questions.

15 In sorting through all the volumes of  
16 evidence and legal arguments that have been  
17 generated during this challenge, you're really  
18 going to have to answer two answers making your  
19 decision: Is there shallow ground water in the area  
20 of the mine? And will that ground water be  
21 impacted by contamination from the mining  
22 operation?

23 If you worked your way through the  
24 record chronologically from beginning to end, one  
25 of the first things you ran across was the

1 company's permit application. As you read that  
2 application, you saw that the company claimed that  
3 there were--are a number of seeps and springs in  
4 the area of the mine. They've even included a map  
5 of the area showing where those seeps and springs  
6 are located.

7           These seeps and springs are surface  
8 manifestations of saturated zones of water located  
9 beneath the surface. Because the mine site sits at  
10 the top of the watershed at 8,200 feet, the water  
11 that feeds these seeps and springs is not part of  
12 the larger regional aquifer, but consists of  
13 isolated pockets of saturation called perched  
14 aquifers.

15           As you read over the testimony, you  
16 might get the impression that this area of the  
17 State is completely dry. But, in fact, it gets the  
18 same amount of precipitation as Salt Lake City,  
19 about 12 inches a year. Just like Salt Lake, not  
20 every year or every season gets the same amount of  
21 precipitation. And most of the recharge of these  
22 zones of saturation occurs during spring snow melt,  
23 although we do get occasional thunderstorms during  
24 the summer months.

25           Really there's no question that there's

1 shallow ground water at the mine site. The company  
2 does put seeps and springs in its application  
3 above--here this year to Division of Oil, Gas &  
4 Mining. The consulting firm hired by the company  
5 notes their presence in internal memos. And during  
6 his testimony at the hearing, Mark Novak, the  
7 permit writer for this mine, admitted that there  
8 was shallow ground water at the mine site. And yet  
9 in spite of all this evidence, the ALJ recommends  
10 that we find that no shallow ground water exists.  
11 Why is that?

12 Put simply, whether or not you define  
13 that ground water exists at the mine site depends  
14 on how you define ground water. If you used the  
15 wrong definition to begin with, you'll get the  
16 wrong answer. And that's what happened here.

17 As you're fully aware, your decision in  
18 this matter must be based on Utah law. And so in  
19 order to come up with a proper definition of ground  
20 water, that's where we have to look. The Water  
21 Quality Act and the ground water protection  
22 regulations both state it is illegal for a person  
23 to discharge a pollutant into waters of the State,  
24 including ground water, without a permit.

25 And both the act and the regulations

1 define waters of the State as including all  
2 accumulations of ground water. So, according to  
3 Utah law, all accumulation of ground water  
4 qualifies for protection. And based on that  
5 definition, found in regulations, an accumulation  
6 of ground water is water found in some zone--excuse  
7 me--in the zone of saturation.

8           So, how deep does the zone of saturation  
9 have to be in order to qualify for protection under  
10 the law? In his testimony, Rob Herbert, head of  
11 the Ground Water Section, admits that a zone the  
12 size of this table (indicating) would be big  
13 enough. And while Mr. Novak admits that these  
14 zones of ground water exist at the mine site, what  
15 he claims is that it's just not practical to  
16 protect all of them. But the law does not give  
17 DWQ discretion to make that distinction. The  
18 executive secretary is required to protect all  
19 accumulations of ground water, including ground  
20 water that DWQ admits exists for a mine site.

21           As you review the testimony regarding  
22 ground water, it quickly becomes clear that part of  
23 the confusion is that there's no clear and  
24 consistent application of the law when it comes to  
25 how ground water is defined.

In her recommending order, the ALJ strays outside the bounds of Utah laws and using a USGS definition of ground water, which states that ground water is water, quote, under hydrostatic pressure which will flow into a well. That definition comes from testimony presented by the company at the hearing.

In their testimony, DWQ staff all looked at the map and tried to find what constituted ground water. First, they stated that had to be a usable amount of water but couldn't really define what that meant. Then, they stated that ground water had to be in some meaningful amount, with no clear idea how much that was. Finally, they said that there had to be more than a minimal amount of water in order to qualify for protection under the law, but again, with no explanation of what that consisted of.

The end result is that there's a clear lack--there's a lack of clear and precise definition--excuse me--the end result is that this lack of clear and precise definition makes it impossible for everyone, including the agency to ensure that the law is consistently complied with.

And while Mr. Novak admits several times



1 that there was shallow ground water present at the  
2 mine site, his explanation for why that water  
3 didn't qualify for protection was that there wasn't  
4 enough ground water to monitor and that it just  
5 isn't practical to protect all ground water in the  
6 State.

7 But the law doesn't give DWQ the  
8 discretion to make that distinction. The Water  
9 Quality Act requires DWQ protect all accumulations  
10 of ground water regardless of size. And the  
11 agency's actions have to conform to provisions of  
12 that statute.

13 The point I'm trying to make is that  
14 unless you use a definition of ground water that  
15 conforms to Utah law and unless you apply that  
16 definition in a consistent manner, you're going to  
17 get the wrong answer.

18 By using an incorrect definition of  
19 ground water as a basis for her recommended order,  
20 the ALJ has undermined the very foundation of that  
21 recommendation. Because of that, Living Rivers  
22 requests that the Water Quality Board remand the  
23 recommended order to the ALJ and director to  
24 examine the evidence of the record, using the  
25 definition of ground water found in the Water

1 Quality Act and then return and revise your  
2 recommended order to this Board for consideration.

3 Now, let me take a moment to talk about  
4 the company's approach to this challenge. In spite  
5 of the admissions in their application that there  
6 are seeps and springs present at the mine site, the  
7 company has spent a great deal of effort to explain  
8 away that evidence. By doing that, the company  
9 calls into question why they included this  
10 information in their application to begin with. It  
11 also places groups like Living Rivers in the  
12 impossible position of never really quite knowing  
13 what the facts in the case are.

14 The executive secretary's decision was  
15 based on information contained in the company's  
16 application to include claims that there are seeps  
17 and springs in the area of the mine. It was only  
18 after Living Rivers brought its challenge that the  
19 company began claiming that the seeps were not real  
20 seeps and the springs didn't exist. By not holding  
21 the company accountable for the information it  
22 submitted in its application and by allowing it to  
23 refute that information only after it appears  
24 inconvenient to obtain its permit sets a dangerous  
25 precedent for everyone and undermines the public's

1 ability to meaningfully participate in the  
2 permitting process.

3 I'd like to remind the Board that Living  
4 Rivers has requested that the company be required  
5 to obtain a ground water permit so that DWQ can  
6 monitor the impacts to this mine on local ground  
7 water. This mine is the first of a kind. It's  
8 the first commercial-scale tar sands mine in the  
9 U.S. And it's the first mine to use this process.  
10 Nobody, including DWQ and the company, really knows  
11 what the impacts from this mine will be. This is  
12 not the time or the place to rush ahead without  
13 knowing where we're going. This is the time to be  
14 conservative, to proceed cautiously, to make sure  
15 that mined tar sands in this way and in this place  
16 won't have unintended consequences on the  
17 environment.

18 In its attempt to quantify ground water  
19 resources in the area of the mine, the company  
20 claims it has gone well above and beyond what the  
21 regulations require. I'd like to make it clear  
22 that Living Rivers is not asking the company to  
23 drill every square foot of their mine site in an  
24 attempt to find ground water. But the fact of the  
25 matter is that holes that U.S. Oil Sands drilled

1 were 400 feet apart. And as DWQ and the company  
2 admit, they could easily have missed a zone of  
3 saturation the size of a football field with that  
4 spacing.

5 What Living Rivers has consistently  
6 asked is, as part of the permitting process, DWQ  
7 require the company to conduct an intensive seep  
8 and spring survey of the area over a reasonable  
9 period of time. And while the company argues that  
10 a seep and spring survey isn't required by statute,  
11 Living Rivers continues to offer this as a  
12 practical solution quantifying the extent of ground  
13 water at the mine site. Unless you conduct this  
14 type of survey over an extended period of time, you  
15 simply cannot account for seasonal or yearly  
16 variation of ground water.

17 Finally, because the ALJ agreed with the  
18 executive secretary and company that there was no  
19 ground water- entitled protection under the law at  
20 the mine site, the recommended order dealt with the  
21 question of testing on a very superficial level.

22 As you reviewed the testimony related to  
23 whether the waste stream from the mine contained  
24 the legal levels of pollutants, you no doubt are  
25 struck by the technical complexity of that

1 testimony. I know I was. But if you push all  
2 that complexity aside and boil this issue down to  
3 its essence, it's really not that difficult. There  
4 are two--aspects of the testing that was conducted  
5 that are necessary for you to understand when  
6 making your decision.

7 First and most importantly, all the  
8 parties agree that there are relatively and simple  
9 and inexpensive tests that should have been done on  
10 the tailings but were not. If those tests had been  
11 done, they would have answered the question whether  
12 the tailings from the mine would result in  
13 unacceptable contamination to the environment.

14 Second, the tests that were conducted by  
15 the company were not done correctly.

16 Regarding the first point, the tests  
17 that weren't done, DWQ offers no reason why they  
18 didn't require the company to go back and conduct  
19 these tests. The Division states something about  
20 the company not having actual tailings from the  
21 mine. But those tailings were never available.  
22 The company used the proxy obtained from Asphalt  
23 Ridge up near Vernal to do that testing. Living  
24 Rivers did not and does not challenge the use of  
25 that proxy. Well up to the date of the initial

1 testing, the company continued to run a series of  
2 internal tests on that proxy material. So, why  
3 didn't DWQ require them to run the correct set of  
4 tests? In fact, why doesn't DWQ require them to run  
5 those tests today?

6 In the recommended order, the ALJ  
7 accepts DWQ's argument that the company will be  
8 required to run those tests once their operation  
9 begins. And if the results reveal that a change to  
10 the permit is required, that change will be made.  
11 But you can't use results from tests that will be  
12 conducted at some point in the future in support of  
13 a permit that's issued today.

14 As to the evidence in the record noting  
15 that the tests that were done were done  
16 incorrectly, the company and executive secretary  
17 offered any number of reasons to try and explain  
18 away the flaws of those tests, but to no avail.  
19 The ground water quality protection regulations  
20 specifically require that, quote, all laboratory  
21 analysis of samples collected to determine  
22 compliance with these regulations shall be  
23 performed in accordance with standard procedures.  
24 Because these tests were not done in accordance  
25 with standard the procedures, they can't serve as a

1 basis for the executive secretary's decision and  
2 must be rejected.

3 In summary, we ask the Board to take  
4 one of two actions. We ask that you either remand  
5 the recommended order back to the ALJ and ask her  
6 to examine the evidence presented by the parties in  
7 light of the provisions the Water Quality Act that  
8 require the executive secretary to protect all  
9 accumulations of ground water, or we ask that you  
10 overrule her recommendation and direct the  
11 executive secretary to require the company to  
12 obtain ground water--a discharge permit for its  
13 mining operations.

14 I have 15 seconds left. Thank you.

15 MS. DOUGHTY: Thank you.

16 Are there any questions for Mr. Dubuc?

17 Yes, Leland.

18 MR. MYERS: Rob, you talk about the  
19 testing being faulty.

20 MR. DUBUC: Yes.

21 MR. MYERS: Can you explain that a  
22 little further? I'm not sure I understood even from  
23 the record why the testing that was used was  
24 faulty.

25 MR. DUBUC: There's a number of reasons

1 of why--and the company actually cites this in  
2 their demonstration. It goes through all of those  
3 tests. And it cites the holding times were  
4 exceeded, that there was air gaps in the top of the  
5 containers. So, they actually admit in their  
6 demonstration that there were problems with the  
7 initial testing.

8 MR. MYERS: Were these highly volatile  
9 fluids that we're dealing with? Is that why we're  
10 dealing with the air gaps?

11 MR. DUBUC: I'd have to pull out the  
12 demonstration. There's probably about three pages  
13 of data in there that--and then it goes through  
14 step by step. And it basically says why each of  
15 those tests have a problem.

16 MR. MYERS: Were all the results flagged  
17 by the laboratory as problems?

18 MR. DUBUC: There was some explanation  
19 in there that says that those were--you know, that  
20 some of those tests were--would probably give some  
21 acceptable data.

22 I think more to the point is that there  
23 were a number of tests that DWQ admits should have  
24 been done and weren't. Until you conduct those  
25 tests, you're not going to know if this--these



1 tailings are going to contaminate the environment.

2 MR. MYERS: Okay.

3 MS. DOUGHTY: Any other questions?

4 MR. TUCKER: What specific tests are you  
5 talking about that should have been run and  
6 weren't? I assume you're taking that from Mark  
7 Novak testimony.

8 MR. DUBUC: Correct.

9 MR. TUCKER: As I read that, what he's  
10 saying is they ran the best test available, what's  
11 the standard for the industry, and he wishes there  
12 was better tests to run, but there was no specific  
13 test that could have been run. So, that's why I'm  
14 wondering what specific tests you're talking about  
15 as an easy, quick test.

16 MR. DUBUC: I don't have the record in  
17 front of me, so I'm not going to try to sit there  
18 and quote what Mr. Novak said. If you read his  
19 deposition in this matter, what you'll see is that  
20 he admits that when they first started analyzing  
21 this mine, they weren't quite sure what tests they  
22 should require. I'm not sure they--still certain  
23 what tests should be required, since it's the first  
24 of a kind. So, I think he made it up as he went  
25 along, but essentially that's what happened.

1                   And so, in hindsight, as he got the  
2                   results of those tests--for instance, the test to  
3                   determine the amount of salinity, that--the TDS  
4                   that's in the tailings. He admits that the tests  
5                   they ran were not really designed to come up with  
6                   the right answer to that question, and if he had to  
7                   do it over again, he would require something else.

8                   Our point during this is, well, why  
9                   didn't you just require them to do it again? And  
10                  we never got a satisfactory answer for that.

11                 MR. TUCKER: I read Mark's deposition  
12                 very carefully, because that's what you're basing  
13                 things on. How I read it is that there were tests  
14                 that could have been run, they don't exist right  
15                 now as we know them. And so he wishes there was  
16                 something there and he wishes he could have run  
17                 something different, but those were the standards.  
18                 And that's how I read it. And so I--you keep  
19                 stating that there's specific tests that the State  
20                 should have run. And that's what I wondered: What  
21                 are those specific tests?

22                 MR. DUBUC: Again, I don't have the  
23                 record in front of me and I'd have to refer to Mr.  
24                 Novak's testimony. But he does go through the tests  
25                 that, if he had to do it over again, he would have

1 required. And the ALJ admits that testing--  
2 additional testing will be run on the tailings once  
3 the operation begins. And then if a modification  
4 in the permit is required, then DWQ will require  
5 that modification. So, there are additional tests  
6 that are run.

7 MR. TUCKER: We can agree to disagree  
8 on that, since I do a lot of this as part of my  
9 business. And I don't know a lot of other tests  
10 that are specific to do. That's why I was wondering  
11 if there was some that you specifically don't know.  
12 And I guess the second key question is that you  
13 state that he admits there's ground water there.  
14 And as I read his deposition, is--he states, Yes,  
15 the wells could have missed it, as you state, as  
16 big as a football field, but he didn't state there  
17 was. And I think that's a key differential to me,  
18 anyway. Yes, unless you drill every foot like you  
19 say you're not requiring, you may not know or until  
20 you dig a hole. But I can't see in his  
21 deposition, as I read it, that he admits that there  
22 is ground water there, so . . .

23 MR. DUBUC: In his testimony at the  
24 hearing, and if you--I'll refer you to our  
25 post-hearing briefing, there are specific citations

1 to the record, with quotations from Mr. Novak,  
2 stating that he admits, "Yes, we admit"--"I admit  
3 that there's ground water in the area, there's  
4 shallow ground water in the area of the mine," I  
5 mean, almost in those words. Again, I don't have  
6 the record in front of me-- I would cite you to  
7 our post-hearing brief and to those citations.  
8 It's pretty clear to us that that's what he said.

9 MS. DOUGHTY: Anything else?

10 Okay. Steven.

11 MR. SIMPSON: You indicated that in the  
12 company's application it claimed that there were  
13 seeps and springs. But, apparently, those seeps and  
14 springs were never located. And, in fact, Elliot  
15 Lips apparently indicates that he found no  
16 indication of water. Can you explain that?

17 MR. DUBUC: Mr. Lips--this--when you  
18 start talking about someone's--a company leasing  
19 the land, whether you can or cannot go on to that  
20 site, in other words whether you're trespassing or  
21 not becomes a question. The company is entitled to  
22 the possession of that land for the purposes that  
23 it leased it. And Mr. Lips, although he went  
24 around the circumference of that lease, did not go  
25 and conduct a detailed survey of the mine site,

1 because that's simply not allowed.

2 MR. SIMPSON: So, are you telling us  
3 that Living--or that U.S. Oil--or U.S.--that the  
4 lessee excluded Mr. Lips from the mine site?

5 MR. DUBUC: Did not ask permission.

6 MR. SIMPSON: Never asked permission.

7 MR. DUBUC: He did not, no.

8 Now, I would refer you to Figure 7 in  
9 the company's application. And a lot of that  
10 information comes from USGS surveys. And it  
11 specifically delineates the seeps and springs in  
12 the area of the mine. So, the mine at the map  
13 site--excuse me. It's a map of the mine site.  
14 And it actually lays out where those seeps and  
15 springs are located. Figure 7, it comes from the  
16 notice of intent to mine, the mining permit that  
17 the company submitted to the Division of Oil, Gas &  
18 Mining.

19 MR. SIMPSON: So, I'm curious. If the  
20 seeps and springs were noted, why weren't they  
21 discovered during the investigation?

22 MR. DUBUC: I think the answer to that  
23 question is, depends on when you look. So, for  
24 instance, we all know that water years vary from  
25 year to year. Last water year, we had floods.

1 This water year, everything's dry. And it kind of  
2 also depends on when you look. So, if you go out  
3 there and look in the middle of August, chances of  
4 finding a flowing seep or spring are substantially  
5 lower than if you go out there after the snow has  
6 melted and after those saturated zones have  
7 recharged.

8 If you look at when the company drilled  
9 and if you look at when the DWQ made its site  
10 visits--specifically the end of June--you have to  
11 wonder whether they looked at the right time. Our  
12 point is that you need to do a more comprehensive  
13 seep and spring survey and you need to look at  
14 different times of the year in order to find that  
15 water.

16 MR. SIMPSON: Now, Mr. Park indicated--  
17 Gerald Park indicated that he had over seven years  
18 of experience in that particular area, but he  
19 didn't note any seeps or springs.

20 MR. DUBUC: That was his testimony.

21 MS. FREY: I want to go back to the  
22 definition issue you brought up. You  
23 have--specifically ask if--you reference that  
24 particular definition, so make sure I understand  
25 what you're saying. This kind of troubled me that

1 you brought in USGS definition of ground water to  
2 augment what we--in our rules, but you also said  
3 sometimes why they're so vague, as you pointed out.  
4 What are you saying is different as a result of  
5 incorporating the USGS definition? Is it strictly  
6 the amount of water that would trigger? How does  
7 that play out in terms of the decision?

8 MR. DUBUC: Okay. So, the USGS  
9 definition--someone asked the question earlier  
10 about whether it had to be a flowing--I think he  
11 used--let me see--free-flowing water. We're talking  
12 about a zone of saturation. What is required is  
13 that the area that the water is in is fully  
14 saturated so there's no air particles.

15 Leland's example of pouring a gallon of  
16 water on the ground and letting it soak in, the  
17 area that soaks into is, by definition, by DWQ  
18 regulation definition, called the vadose zone. And  
19 that's a mixture of air and water. According to  
20 DWQ's interpretation of its regulations, that zone  
21 is not entitled to protection. It's not until that  
22 water seeps down and accumulates in an area of  
23 saturation, a zone of saturation, that the water is  
24 protected. And so that water doesn't necessarily  
25 have to be flowing. In fact, at certain times of

1 the year, the water may be sitting there. Until it  
2 recharges in the spring and a sufficient amount of  
3 water can manifest itself on the surface, nobody  
4 would even know that water is there.

5 I understand what you're saying about  
6 the lack of clarity in terms of the definition.  
7 And I think that, you know, as we deal with  
8 different mines out in this area of the State, we  
9 really do need to fix that problem, because it's  
10 quite clear, based on the testimony and based on  
11 the evidence in the record, that nobody's quite  
12 sure how much water it takes to qualify for  
13 protection. So, our point is that the default has  
14 to be the statute. And the statute says all  
15 accumulations of water. And "all" means "all." You  
16 know, if it's the size of this table, it needs to  
17 be protected.

18 MS. DOUGHTY: Other questions?

19 Greg.

20 MR. ROWLEY: Kind of the same thing.

21 One follow-up question. I think your witness  
22 talked about what a seep or a spring was and  
23 defined one as a seep as less than a gallon a  
24 minute or a spring greater than that, and yet  
25 you're saying moist soil would have qualified. Why



1 the difference between your witnesses' definition  
2 and yours?

3 MR. DUBUC: All I'm saying is that  
4 there are--there's ground water all over the State  
5 that doesn't manifest itself on the surface. We  
6 probably don't even know about. It doesn't have to  
7 be flowing on the surface. It doesn't have to  
8 manifest itself in the form of a seep or spring in  
9 order to qualify--

10 MR. ROWLEY: But it has to be  
11 free-draining. Does that equal saturation?

12 MR. DUBUC: Saturation is a lack of  
13 air. It's a fully saturated zone. It doesn't have  
14 to be free-draining. It could be sitting there. It  
15 just depends on the geological formation that  
16 you're talking about.

17 Now, if you have a zone of saturation  
18 that is full of water but it doesn't have an  
19 opportunity to manifest itself on the surface and  
20 then the snow melts and it overflows just like it  
21 overflows a bucket, then you would see it in the  
22 form of a seep or spring. But just because it's  
23 sitting there and not showing itself in the form of  
24 a seep or spring doesn't mean that it's not  
25 qualified for protection.

1 MR. ROWLEY: It is perched at that  
2 point.

3 MR. DUBUC: It is perched.

4 MR. ROWLEY: But I'm just trying to get  
5 at the flow rate that was used for a definition for  
6 a seep or spring.

7 MR. DUBUC: Mr. Lips was using that as  
8 an example. And specifically, he was using it as an  
9 example to refute DWQ's claim it had to be a usable  
10 amount of water. And his point was is that if it  
11 flows a gallon a minute, it adds up. And within a  
12 hour, you're filling a 55-gallon drum, that's a  
13 useful amount of water. So, I think he was using  
14 that as an example of--to sort of refute the claims  
15 by DWQ.

16 MR. ROWLEY: My second question has to  
17 do with saturations, that of the tailings. I think  
18 when they put in their amended application, they  
19 were going to do some additional treatment of the  
20 tailings. I assume that had to do with making sure  
21 that they weren't free-draining. Do you have any  
22 reason to believe that they're going to be free-  
23 draining, any additional evidence that that would  
24 still be an issue?

25 MR. DUBUC: Unfortunately, much of the

1 information related to the tailings has been  
2 withheld by the company as a way for protecting  
3 what it terms proprietary wells. And so we do not  
4 have ready access to that information. And we have  
5 not had an opportunity to run our own series of  
6 tests on that material. And so I honestly can't  
7 answer that question. Perhaps it's not an issue.

8 MR. ROWLEY: You could have a re-opener  
9 in there if it is free-draining, permit is  
10 re-looked at.

11 MR. DUBUC: I'm not sure that's quite  
12 the qualification that would kick it into a  
13 re-opener. I think it has to be a bit more  
14 substantial than that. If you read the re-opener  
15 provision in the rules, it has to be a significant  
16 change in order to qualify.

17 MS. DOUGHTY: Amanda, go ahead, and then  
18 Darrell.

19 MS. SMITH: So, I have a couple of  
20 questions for you. And I guess it somewhat hinges  
21 around what's de minimis. And I'd be curious to  
22 know what your thoughts are on what you would  
23 define as de minimis, but I want to ask foundation  
24 first--

25 MR. DUBUC: Sure.

1 MS. SMITH: --before you answer. The  
2 other issue is that you keep in your testimony  
3 throwing around the word "protection," that any  
4 amount of water in the State deserves protection.  
5 And--but this isn't really what we're talking  
6 about. What we're talking about is keeping this  
7 for a permit-by-rule to a permit which would then  
8 require monitoring. So, one of the key hinging  
9 points here is that what we're saying--and what I  
10 have to agree to--I've looked at the NOI, the  
11 original NOI, and there isn't--there's water  
12 that--there's springs known in the area, but even  
13 that, they're not finding water in my reading of  
14 it.

15 So, what I'm asking is, if you kick it  
16 to a full-blown permit requiring monitoring, how  
17 would you do that at the site? Is there a  
18 practical way or a path forward if you get there?  
19 Because we--I mean, I would say that a  
20 permit-by-rule is protective in a realistic way of  
21 the specifics of the site. So, what would your  
22 reaction be to that?

23 MR. DUBUC: Well, one of the reasons  
24 that we asked for--that the company be required to  
25 submit a permit, one is that there be a more

1 comprehensive survey of the seeps and springs in  
2 the area in order to define ground water.

3 MS. SMITH: I'm sorry. I just have to  
4 interrupt. In all the testimony and the maps we've  
5 seen, what would be comprehensive enough?

6 MR. DUBUC: A seeps and springs survey  
7 that is conducted over an extended period of time  
8 and takes into account the variation of the water  
9 year. In other words, not something that--you  
10 don't go out in the end of June and say, "There's  
11 no water here. We're good." They have to go out  
12 at different times in the year in order to sample  
13 these areas. Now, the USGS has identified where  
14 those seeps and springs are located.

15 So, to answer your question regarding  
16 monitoring, there are very inexpensive ways of  
17 determining whether there--you know, whether that  
18 water is flowing and whether the--that water is  
19 going to be impacted by this mining operation. But  
20 unless DWQ actually conducts that monitoring, we'll  
21 never know. And that is our point, is that what  
22 we're asking for is a more rigorous oversight of  
23 this mine.

24 Now, at the end of the day, who knows  
25 what the results of that monitoring will be? But

1 unless we at least take that step, we will never  
2 know the answer to that question. And we are  
3 asking DWQ to take that step.

4 In terms of your question regarding de  
5 minimis, I guess that's a fluid concept. And I  
6 recognize that there is a certain amount of  
7 discretion that the executive secretary has in  
8 order to make--in order to determine what that  
9 means. I think that is something that each of us  
10 might answer in a different way. And so I'm not  
11 sure exactly how to answer that question.

12 My point that I was trying to make is  
13 that this is the first of its kind and we should  
14 be conservative in how we approach this. And if  
15 anything should--if any mining operation should  
16 require continuous oversight in order to ensure  
17 that that de minimis ruling was correct, this is  
18 it. And the way it's currently configured, that's  
19 not going to happen.

20 MS. DOUGHTY: Darrell, did you have a  
21 question?

22 MR. MENSEL: Amanda asked exactly the  
23 question I was going to ask.

24 MR. SIMPSON: Relative to the seeps and  
25 spring survey, you used the term "over a period of

1 time" and "extended period of time." And I'd like  
2 to know what that means. Are you talking about one  
3 water year, or are you talking about five water  
4 years? What is an extended period of time or a  
5 period of time?

6 MR. DUBUC: Well, let me answer that by  
7 making an analogy to something that's gone on in  
8 Willard Spur. They are conducting a multi-year  
9 study on the impacts to Willard Spur. One of the  
10 things that's happening over the last few years,  
11 and actually has been, I think, beneficial to  
12 conducting that study is that we had one year where  
13 we had more water than anyone knew what to do with,  
14 and this year, it's a bathtub out there. And that  
15 gives us those extremes that we're able to then use  
16 that data and determine what normal is.

17 So, the answer to your question depends  
18 on the situation and what occurs. We can't predict  
19 what the water year is going to be. We can't  
20 predict how much snow we're going to get. And I  
21 think that is--that becomes a judgment call that  
22 has to be made by DWQ as it occurs. So, that  
23 would be my answer to that question.

24 MR. SIMPSON: Isn't that generally built  
25 into the permit-by-rule designation where water

1 quality will continue to monitor, and if there is,  
2 for example, a heavy water year and it appears that  
3 there--or that seeps and springs do appear, that  
4 this could then be converted to a--to requiring a  
5 discharge permit?

6 MR. DUBUC: There is no monitoring  
7 required in permit-by-rule. It's self-monitoring  
8 by the company. And what we're saying is that we  
9 would be more comfortable having the State agency  
10 oversee this operation rather than depending on the  
11 company to self-report evidence of seeps and  
12 springs.

13 MR. SIMPSON: I believe that Water  
14 Quality has indicated that it will continue to  
15 monitor--and if there is a change, that the  
16 permit-by-rule designation could be altered.

17 MR. DUBUC: We have not seen any  
18 specific proposal. And there's no requirement in  
19 the law to monitor based on the permit-by-rule.

20 MR. SIMPSON: Thank you.

21 MS. DOUGHTY: Any other questions?

22 Leland.

23 MR. MYERS: I just--I don't know if  
24 it's really applicable. But you mentioned the  
25 difference between overseeing self-monitoring and



1 self-monitoring, and when in fact under the law  
2 those pretty much the same. When I have to  
3 monitor, I have to follow the rules as to how--what  
4 testing procedure we use, what kind of laboratory  
5 I'm able to use to do that monitoring, whether it's  
6 self-monitoring or overseeing self-monitoring, I  
7 don't see a differentiation of that. Could you  
8 explain, if there is one?

9 UNIDENTIFIED SPEAKER: Demonstration--

10 MS. DOUGHTY: No.

11 MR. DUBUC: When I drive down the  
12 highway and the speed limit's 65 and there's a  
13 police car in the left-hand lane, chances of me  
14 going 75 or 80 are pretty low. If there's not a  
15 police car in the left-hand lane, the traffic seems  
16 to be more free-flowing. I think that's just human  
17 nature. If someone is looking over our shoulder,  
18 we tend to act differently than if they're not.  
19 And that would be my answer to that question.

20 MR. MYERS: When they are looking over  
21 your shoulder as you do it, yeah. That's like a  
22 policeman is there when I'm driving, so he sees me.  
23 But DWQ rarely sees any self-monitoring performed.  
24 So, I don't see the difference, assuming adequate  
25 monitoring is actually taking place.

1 MR. DUBUC: That is the assumption.

2 MS. DOUGHTY: Okay. Any other  
3 questions?

4 MR. ROWLEY: I have a question not for  
5 the witness. But are we going to be able to get  
6 feedback from DWQ as to their interpretation of  
7 what it takes to reopen a permit in a case of  
8 tailings or in the case of water that shows up at  
9 a later date? How does that work?

10 MS. McEWAN: It needs to be in the  
11 record. So, if something was asked in the record  
12 and they can point to it, then . . .

13 MR. ROWLEY: So, who do I ask? In the  
14 audience, or how do we go about getting that on the  
15 record?

16 MS. McEWAN: That's what I mean. We're  
17 not adding to the record, so we'll have to point to  
18 something that's already in there. You could ask  
19 Mr. McConkie afterward. You may want to just make a  
20 note of that and get--after the next presentation.  
21 And then we can try to find a way to work through  
22 that. But you just can't add evidence.

23 MR. ROWLEY: Okay.

24 MS. DOUGHTY: Any last questions for Mr.  
25 Dubuc?

1 Thank you.

2 MR. DUBUC: Thank you for your time.

3 THE COURT: Mr. Hogle for U.S. Oil  
4 Sands.

5 MR. HOGLE: Is it okay to proceed?

6 MS. DOUGHTY: Yes, go ahead. I'm  
7 sorry.

8 MR. HOGLE: No, that's okay. I wanted  
9 to make sure we were all set.

10 Madam Chair, members of the Board, I'm  
11 Chris Hogle on behalf of U.S. Oil Sands. And U.S.  
12 Oil Sands appreciates this opportunity for me to  
13 speak in support of all the hard work the ALJ did  
14 in this case in the recommended decision. And U.S.  
15 Oil Sands urges the Board to approve and adopt the  
16 recommended decision in its entirety. Mr. Dubuc  
17 was correct, there are two issues. Stated simply,  
18 was there shallow ground water, and if so, will the  
19 operation--the proposed mining operation impact it  
20 beyond de minimis level.

21 Like many cases, this case turns on the  
22 burden of proof. And Living Rivers stipulate in a  
23 joint prehearing statement and order that Living  
24 Rivers bore the burden of proof. So, Living Rivers  
25 had to present evidence of shallow ground water.

1 Living Rivers had to present evidence of an impact  
2 on the shallow ground water beyond a de minimis  
3 level. Living Rivers had to show a lack of  
4 substantial evidence to support the executive  
5 secretary's factual determinations regarding a lack  
6 of shallow--absence of shallow ground water and  
7 more than a de minimis impact to that shallow  
8 ground water. And Living Rivers simply didn't  
9 satisfy its burden of proof.

10 Now, the ALJ did an excellent job of  
11 parsing through all the evidence. The ALJ did an  
12 excellent job at overseeing the presentation of  
13 evidence. We had two full days of live witness  
14 testimony and presentation and explanation of  
15 exhibits. And she did not exclude anything that  
16 Living Rivers sought to add, nothing. Living  
17 Rivers was not denied any access to any  
18 information. Living Rivers asked the ALJ to  
19 conduct a prehearing deposition of a witness. And  
20 they were allowed to do that. Living Rivers never  
21 asked to see any information beyond that which was  
22 provided to them.

23 The ALJ's recommended decision does a  
24 good job of outlining all the evidence of the  
25 absence of shallow ground water. Mr. Dubuc says,

1 Well, they only looked once at the end of June.  
2 Well, that's just not true. Mr. Parks--Gerald  
3 Parks, who is a licensed professional geologist,  
4 has been to the site repeatedly since 2005 during  
5 every month of the year except for January--every  
6 month of the year. And he's traipsed around mine  
7 site. And he's looked for evidence of shallow  
8 ground water. And he's looked to find it. He's  
9 not looked to not find it. He looked to find it,  
10 because they needed it. U.S. Oil Sands needs water  
11 for its operations. And he didn't find it. He  
12 didn't find it. There's none. The 2011 drilling  
13 program was done during one of the wettest years on  
14 record. And he found none.

15 And maybe Mr. Novak--Mr. Tucker, you're  
16 absolutely correct. Mr. Novak, all he said was--  
17 and I looked at every single page Living Rivers  
18 signed with regard to Mr. Novak's testimony. And  
19 what he said was--is that, No. 1, he could rule out  
20 monitorable quantities of ground water, but he  
21 could not rule out quantities of ground water  
22 smaller than that. But you know who could? Rob  
23 Herbert did. He ruled it out on page 104 of the  
24 transcript. Bob Bayer--Robert Bayer did. He ruled  
25 it out in his sworn testimony. Gerald Parks did.

1 That's substantial evidence. And Living Rivers has  
2 nothing, nothing to indicate that there's shallow  
3 ground water in the mine site.

4 What did they show? What did they  
5 have? Well, they had snippets in U.S. Oil Sands'  
6 submissions to the agency in its permit-by-rule  
7 application--or demonstration, snippets that say  
8 there are nearby seeps and springs in the area--in  
9 the general area. Well, those nearby seeps and  
10 springs were plotted. This is Figure 7. This is  
11 the figure that Mr. Dubuc referred to this morning.  
12 This is Figure 7. Now, these blue dots down here  
13 (indicating) represent USGS mapped springs. And  
14 the evidence was undisputed that those springs are  
15 hydrologically disconnected from the project site.  
16 They're not going to get impacted.

17 Now--so, the other thing that Living  
18 Rivers identified was a water right application for  
19 this blue dot right there (indicating). There was  
20 a water right application for that. It was  
21 rejected. There's an exhibit in the record, an  
22 official rejection notice from the State engineer.  
23 It was rejected. It wasn't rejected for some  
24 administrative reason. It was rejected due to  
25 physical impossibility, meaning there's no water.

1 So, Living Rivers' case boiled down to these four  
2 little green dots (indicating). That's what their  
3 whole case boiled down to.

4 They--those are labeled--yes, those are  
5 labeled as seeps. But there are seeps and then  
6 there are seeps. The evidence--the testimony came  
7 in that there are some seeps that do not represent  
8 ground water, including Elliot Lips, Living Rivers'  
9 own expert. His testimony was these seeps may not  
10 represent shallow ground water. And Mr. Lips went  
11 to the project site. He didn't say that he was  
12 limited to the circumference of the project site.  
13 He didn't say that. He said he went to the  
14 project site. And he did not report any finding of  
15 evidence of shallow ground water. And you got--I  
16 mean, you got to think if he found it he would  
17 have said something. Okay. All right.

18 There was one witness in this case who  
19 had personal knowledge about what those four green  
20 dots actually represent. And that witness was  
21 Gerald Park. Gerald Park-- this is Exhibit 314--  
22 Gerald Park drew this diagram to represent what  
23 those four green dots really mean. And what he  
24 said was, is that they're not related in any way,  
25 shape, or form to ground water; what they're

1 related to is runoff from precipitation events.

2 So, this would reflect (indicating) the  
3 top of the hill where the mine will be. This is a  
4 core hole (indicating), 1401. It's an exemplar  
5 core hole that--one of the 55 that U.S. Oil Sands  
6 drilled in the project area. This would be the  
7 hillside (indicating) where those seeps--  
8 quote/unquote, seeps were located. And what he's  
9 saying is that as the snow melt--as the snow melt  
10 happens, rain happens, it comes downhill--this is a  
11 talus area (indicating), or a collection of loose  
12 gravel. It builds up in basically a puddle on top  
13 of the oil sand bed. And it just puddles up  
14 there. And then at some time after the storm  
15 happens, they're gone. They're gone.

16 So, this is the personal knowledge  
17 regarding what those green dots really mean. It's  
18 not a theory. Living Rivers tries to dismiss it as  
19 just a theory. Gerald Park's--Park testified that  
20 it's not a theory, it is personal knowledge based  
21 on seeing, touching, feeling. He sunk a pickax into  
22 those gravelly areas. That's their case. They  
23 didn't satisfy their burden of proof.

24 Now, impact. This is a good project  
25 that U.S. Oil Sands wants to do. And it's been in



1 the planning--in the permitting process since 2005.  
2 And, I mean, we're not blaming the agency. The  
3 agency's done a great job. But they want to get  
4 started. And this is a good project. And it  
5 deserves to get started. Their project will be  
6 best in class at recovering 96 percent of the  
7 bitumen of oil sands, 96 percent.

8 The only additive that U.S. Oil Sands  
9 will introduce that's not already out there in the  
10 native area, the only thing that they're going to  
11 add to separate the bitumen from the sands is  
12 d-limonene. And d-limonene is a naturally  
13 occurring citrus product made out of orange peels.  
14 And according to Living Rivers' own exhibit,  
15 Exhibit 204--it's an EPA publication--it's safe.  
16 It's generally regarded as safe in food. It's been  
17 tested to be safe on mammals.

18 And the other thing about d-limonene is  
19 it evaporates or volatilizes quickly. It  
20 biodegrades. It volatilizes quickly. U.S. Oil  
21 Sands's project is proven to recover 99 percent of  
22 the d-limonene that they'll add--99 percent. So,  
23 what will be left over that goes into the disposal  
24 areas is just a minor trace amount.

25 And it--what Oil Sands is--U.S. Oil

1 Sands is going to do is mechanically mix the fines  
2 and the sands and use robust drying mechanisms so  
3 that there's going to be little chance, if any,  
4 that the d-limonene won't evaporate. It's going to  
5 evaporate on this high plateau, windswept area.  
6 There's going to be de minimis impact, if any.

7           There was some questions about the  
8 definition. And I want to address the definition.  
9 U.S. Oil Sands contends that the ALJ in this case  
10 used an improper definition of ground water. But  
11 the definition of ground water that the ALJ used  
12 was the definition of ground water in Utah law. If  
13 you look at Paragraph 16 on page 31 of her  
14 recommended decision, that's the definition that  
15 she's using. And she quotes, Ground water means  
16 subsurface water in the zone of saturation,  
17 including perched ground water. That's Utah law.

18           Now, what Living Rivers says is that,  
19 no, she should have used the waters of the State  
20 definition. Waters of the State means all streams,  
21 lakes, ponds, etc., and all other bodies or  
22 accumulations of water, surface and underground.  
23 So, they're saying the ground water--the definition  
24 should be that instead of ground water in your  
25 regulations. Well, that argument--this is not the

1 time and place for that argument. That's a  
2 rulemaking argument. And that argument would  
3 really throw a monkey wrench into what this agency  
4 is doing. Rob Herbert testified that he's  
5 supervising 41 ground water discharge permits right  
6 now. And if we go and change the ground water  
7 definitions under Utah law now, that's really going  
8 to throw a monkey wrench into things.

9 But, in any event, the ground water  
10 definition and the waters of the State definition--  
11 there's no conflict there. The waters of the State  
12 definition uses the word "accumulations of waters,  
13 surface and underground," "accumulations." Well,  
14 based on the science of ground water, accumulations  
15 of underground water and water in the zone of  
16 saturation, it's the same thing. They're one and  
17 the same. It can't be any other way under the  
18 science of ground water.

19 Now, below that--and I'm going to  
20 explain that. Below the waters of the State  
21 definition, I've got the USGS definition of zone of  
22 saturation. Now, the ALJ did not use a USGS  
23 definition to supplant the ground water definition.  
24 She did not do that. What she did is she filled  
25 in the gap here that--you'll see the ground water

1 definition says zone of saturation. Well, we  
2 looked hard in the regs and the State law for a  
3 definition of zone of saturation. Unfortunately, we  
4 didn't find one. So, we went to an authoritative  
5 source, the United States Geological Survey. And  
6 what they say is that the zone of saturation means  
7 the zone in which the functional permeable rocks  
8 are saturated with water under hydrostatic  
9 pressure. Water in the zone of saturation will  
10 flow into a well and is called ground water. Zone  
11 of saturation where the--basically the pore space  
12 is saturated with water under hydrostatic pressure.

13 Well, guess what? That's the same as  
14 an aquifer under the definition provided in State  
15 law. Aquifer is a geologic formation that contains  
16 sufficiently saturated permeable material. It's  
17 the same thing. Zone of saturation is the same  
18 thing as an aquifer. And an accumulation within  
19 the waters of the State definition can't mean  
20 anything else. And you know who said that? Elliot  
21 Lips said that. Mr. Lips, Living Rivers' expert,  
22 testified--in describing how precipitation becomes  
23 ground water, he testified you'd start to  
24 accumulate water in the pore spaces. It's going to  
25 saturate the pore space. That's what Mr. Lips

1 said. And he went on to say this zone where the  
2 ground water occurs is an aquifer. There's no  
3 conflict. The ALJ used the correct definition.  
4 There's no need to--she used the correct definition  
5 based on Utah law and the science of ground water.

6 Thank you very much.

7 MS. DOUGHTY: Thank you.

8 Questions for Mr. Hogle?

9 MS. FREY: I have a question on that  
10 last point. You're saying--I think what I heard you  
11 say is that USGS definition and the definition of  
12 the aquifer are the same. Was that part of your  
13 point there at the end?

14 MR. HOGLE: The USGS definition--we only  
15 use that to define the zone of saturation. The  
16 zone of saturation, according to the USGS, is the  
17 same. Essentially it's the same as the Utah State  
18 definition of aquifer.

19 MS. FREY: Except towards the last part  
20 of our definition of aquifer, which is usable  
21 quantities of water, that is the question. They're  
22 not the same. They're similar, but they're not the  
23 same.

24 MR. HOGLE: Only because the word  
25 "usable" isn't in the USGS definition. But the

1 USGS definition does say it has to be under  
2 hydrostatic pressure and water in this zone of  
3 saturation will flow into a well.

4 MS. FREY: Right.

5 MR. HOGLE: Rob Herbert testified that  
6 that's why he said ground water is in an aquifer  
7 and it has to be usable. That's why he said that.  
8 And you know who else said that? Mr. Lips.  
9 There's really no dispute in this case that ground  
10 water is water in an aquifer.

11 MS. DOUGHTY: Other questions?

12 Darrell.

13 MR. MENSEL: Yeah. As I understand it,  
14 the water that you use for processing in this comes  
15 from some deep wells that you've established in the  
16 deep aquifer, which is isolated supposedly from the  
17 impacts of the mine itself. Is that correct?

18 MR. HOGLE: That's correct. We drilled  
19 five holes to find the ground water. Each one was  
20 drilled over 1,500 feet below depth. Four were  
21 dry, bone dry. We found one--the fifth one, we  
22 encountered water for the first time at over 1,800  
23 feet. And that's what you want to know.

24 MR. MENSEL: And how much water is  
25 involved in this processing?

1 MR. HOGLE: It's estimated to be 4,000  
2 barrels per day, give or take.

3 MR. MENSEL: Okay. I guess one of my  
4 concerns is--and doesn't really get talked about  
5 much by the scientists--is that the mine pit is  
6 going to be dug to a depth that penetrates a  
7 formation which, according to Elliot Lips, is the  
8 zone of permeability in that area in which--so  
9 you're bringing up water from a mine--your mining  
10 water, I think, from--as far as I can tell. Then  
11 you're bringing up and using it and putting it into  
12 a pit, which has penetrated a permeable formation.

13 In other words, it seemed to me that  
14 you're actually changing the hydrology of the area.  
15 And that may not be so big of a deal on 70 acres,  
16 but you guys are planning a 6,000-acre operation.  
17 And that's just the marginal developments. You  
18 know, I don't see how you can just simply say that  
19 this is all down the road and so on, so forth,  
20 something we can just look away from.

21 MR. HOGLE: Well, here's a good--this is  
22 Exhibit 314 again. We are taking out some of the  
23 impermeable layers, but we're not taking them all  
24 out. We are not going to mine the lowermost oil  
25 sand beds, which will form a permeable layer that

1 will protect whatever is beneath there. But  
2 there's nothing beneath there until over 1,500  
3 feet.

4 So--and this is a 213-acre project right  
5 now. U.S. Oil Sands wants to establish a proven  
6 track record with this and then take the same  
7 proven track record and move on. If they don't  
8 move it right under the ongoing supervision and  
9 monitoring, if they don't prove it, then they have  
10 to come in for a ground water discharge permit and  
11 they will have to conclude their process. So--I  
12 mean, right now before you is just this 213-acre  
13 project, not 3,000 acres or anything else.

14 MR. MENSEL: Uh-huh (affirmative). I  
15 guess this is--maybe it's off the point. But, you  
16 know, if this is a demonstration project, I don't  
17 understand why your company didn't just ask the  
18 State of Utah to monitor the thing. You know,  
19 because then you got proof and then you can go out  
20 to the people and say, Hey, we've asked the State  
21 to look at it. They got people out there. We got  
22 a permit. We're doing--you guys would have already  
23 been digging in the ground by now.

24 MR. HOGLE: Well, actually, that's going  
25 to happen, because we're not only dealing with DWQ,



1 but we're also dealing with DOGM. And DOGM has a  
2 reclamation plan that requires us--and put in  
3 place. And there's going to be monitoring by the  
4 DOGM folks in connection with the implementation of  
5 that reclamation plan.

6 MR. MENSEL: Is it water monitoring?  
7 Is water monitoring going to be part of it?

8 MR. HOGLE: It's whatever they want it  
9 to be. The rules--the DOGM rules don't limit it to  
10 any kind of specific type of monitoring.

11 MR. MENSEL: Well, that's helpful, but  
12 I'm not sure I completely trust DOGM.

13 MS. DOUGHTY: Steven.

14 MR. SIMPSON: I think Darrell raises the  
15 issue of the re-opener. Can you help us understand  
16 how this permit-by-rule permit could be reopened  
17 and what would be the trigger for that?

18 MR. HOGLE: Sure. Well, we--U.S. Oil  
19 Sands wants to be a good partner with the State and  
20 with DWQ. And so what they've done is they've  
21 committed to do the things--some of the things  
22 they've already done and some things they're going  
23 to do. So, in the 2008 demonstration, the  
24 submission that U.S. Oil Sands made to the agency,  
25 they said, Here's all the information that we have.

1 And we're going to do this intensive--the drilling  
2 program. And we're going to share those results  
3 with you. And they did.

4 And because the testing hasn't been done  
5 on actual tailings, Mark Novak asked U.S. Oil  
6 Sands, once they're up and running, to go ahead and  
7 please do that and share the results with us. And  
8 they're going to do that. There hasn't been any  
9 request that's been denied. And U.S. Oil  
10 Sands--like I said, they want to be a good partner  
11 with DWQ. And so they'll do whatever is reasonably  
12 required. They'll do whatever is asked of them to  
13 demonstrate that this is a good project.

14 MR. SIMPSON: Is there any stipulation  
15 between U.S. Oil Sands and Water Quality relative  
16 to what U.S. Oil Sands will do?

17 MR. HOGLE: Well, there's not like a  
18 formal stipulation. But the company representative  
19 testified under oath during the evidentiary hearing  
20 that he was willing to do the further testing that  
21 the Division wanted to do. And maybe there can be.  
22 But for purposes of this proceeding, I think that  
23 we're entitled to go forward. And in terms of the  
24 monitoring--like I said, you know, every indication  
25 is that the folks have worked well with one

1 another. We've worked well with Mr. Novak. And  
2 we'll continue to do so.

3 MR. SIMPSON: Thank you.

4 MS. DOUGHTY: Question?

5 MR. ROWLEY: Two questions. Again, kind  
6 of coming back to the tailings and whether or not  
7 they're saturated or not, I know we changed their  
8 permit or they changed their permit. Was that done  
9 to address concerns about tailings themselves being  
10 saturated? I know they're running it through a  
11 screen, a press, or--

12 MR. HOGLE: Actually, it wasn't--  
13 actually, the process was changed to recover more  
14 water. Water's scarce. And so they need to recycle  
15 as much water as they can. And that's the reason.  
16 It just so happened that using those extra robust  
17 mechanisms, it makes it even more safe, but we  
18 think it was safe before.

19 MR. ROWLEY: That wasn't done to reduce  
20 the saturation point.

21 MR. HOGLE: No.

22 MR. ROWLEY: What about the Po2  
23 question? I think it's a good one--you need to put  
24 in a small plastic pipe to monitor for ground water  
25 rather than just taking a look for water on the

1 surface. Are you going to do that, or are you  
2 willing to do that?

3 MR. HOGLE: Well--I mean, they've done--  
4 Rob Herbert testified that what U.S. Oil Sands has  
5 done to look for water is extraordinary, it's  
6 beyond anything he's ever seen. And so we think  
7 we've done enough. Putting PVC into the ground  
8 with holes. First of all, there has to be water  
9 there. Where do we put it? We've looked--  
10 everywhere we've looked since 2005 for water,  
11 everywhere we've looked--and we can't be faulted  
12 for not looking enough--everywhere we've looked we  
13 see none.

14 MR. ROWLEY: I understand that. I just  
15 know when we worked with the Corps of Engineers--  
16 they come in and they pick out a plot there and  
17 put in Po2 and then you monitor it. And that can  
18 be done while the mine's in operation, so keep the  
19 mine in operation, too.

20 MR. HOGLE: You know, that may be  
21 something that we could talk about in this ongoing  
22 supervision process.

23 MS. DOUGHTY: Other questions or  
24 comments?

25 MR. BUNKER: You ready for our motion?

1 MS. DOUGHTY: So, no other questions for  
2 Mr. Hogle.

3 Mr. Rowley.

4 MR. ROWLEY: I have a question after  
5 that, the general question I asked earlier about  
6 re-opening this and stuff.

7 MS. DOUGHTY: Darrell.

8 MR. MENSEL: I just wanted to point out  
9 one other thing. I agree with your comments that  
10 d-limonene has been determined to be safe.  
11 That's--from what I can read, it's a citrus-based  
12 product and it's fairly safe. But the point that  
13 was made in William Johnson's testimony. And I  
14 think it's something that has to be stated--and you  
15 didn't state it--and that is that the problem with  
16 d-limonene is that it makes--it adds mobility to  
17 carcinogenic hydrocarbons which are currently  
18 locked up in the oil formations themselves, and  
19 that to me is the real--if you're talking about a  
20 pollution issue, that's the real issue. So, people  
21 need to know that. It's not about--not really  
22 about d-limonene. It's about something else.

23 MR. HOGLE: Okay. But what Mr. Johnson  
24 didn't take into account was the fact that what  
25 U.S. Oil Sands was going to do. I mean, they're

1 going to--they got a whole robust process that uses  
2 the d-limonene to mobilize and extract from the  
3 sand every last molecule that can possibly be  
4 extracted. So, they're going to use, you know,  
5 anything humanly possible to get that bitumen out  
6 of the sand before it goes back into a disposal  
7 area and Mr. Johnson--Doctor-- Professor Johnson,  
8 with all due respect--he did not take that into  
9 account. He also assumed that the residual  
10 materials would be saturated. And he didn't do  
11 anything to study that. And I think as the record  
12 demonstrates, these are not going to be saturated  
13 conditions.

14 MS. DOUGHTY: Thank you.

15 MR. SIMPSON: The recovery rate, I think  
16 I read somewhere in the record that it was in the  
17 90 percent--

18 MR. HOGLE: Ninety-six percent. Yeah.

19 MS. DOUGHTY: Thank you, Mr. Hogle.

20 Discussions here within the Board?

21 And I know, Greg, you have a point that  
22 you'd like to bring up again. We're going to ask--

23 MR. ROWLEY: However, we can go back to  
24 the Division and find out whether or not if they do  
25 find these tailings are saturated, does that reopen

1 it? If they do find ground water in the course of  
2 mining, does that reopen it?

3 MS. DOUGHTY: Go ahead, Leland.

4 MR. MYERS: According to our Counsel, we  
5 have to find a connection for that question to--so,  
6 in Rob Herbert's testimony, which is admitted as  
7 document No. whatever--100, 101, something like  
8 that; I can find that number if you want--Rob  
9 Herbert mentions that if DWQ becomes aware of  
10 information indicating that the U.S. Oil Sands PR  
11 Springs project is causing ground water degradation  
12 or interfering with beneficial uses of ground  
13 water, the executive secretary will require the  
14 company to submit an application.

15 So, in that, it states that they would  
16 do that. And I'm assuming that that would mean  
17 there would be some methodology to--and this would  
18 be the question back to the State--to the Division,  
19 what would be the methodology to make that  
20 assessment that something was going on? Would it  
21 be additional sampling that DWQ was doing in the  
22 area? Would it be sampling that is being requested  
23 from PR Springs, the U.S.--U.S. whatever it was--  
24 Oil Sands? What would be the methodology to answer  
25 how you would become aware of that?

1 MR. McCONKIE: I'm just going to add  
2 Rob Herbert to address--

3 MS. DOUGHTY: Probably take the  
4 microphone, please, so people can hear.

5 MR. HERBERT: Well, as I stated in my  
6 testimony, the Division of Oil, Gas & Mining is  
7 required to conduct best management practices.  
8 Those are specified in the DOGM mining permit. So,  
9 those would be the mechanisms for determining if  
10 there's a problem from the results of the best  
11 management practices.

12 MR. MYERS: Do you consult with DOGM to  
13 help them understand what sampling would be  
14 necessary in order to meet those best management  
15 practices?

16 MR. HERBERT: Yes.

17 MR. MYERS: So, sampling could be done  
18 through DOGM's requirement that would meet the  
19 requirements of the Division of Water Quality to  
20 assess the water quality circumstances?

21 MR. HERBERT: That's correct.

22 MR. ROWLEY: As part of the agreement  
23 already, they've agreed to leaching tests as soon  
24 as they start to have actual tailings. Is that  
25 correct?



1 MR. HERBERT: Who is who? The company  
2 has agreed to do additional leachability tests, not  
3 DOGM.

4 MR. ROWLEY: Okay.

5 MS. DOUGHTY: Any other questions or  
6 comments or discussions?

7 MS. FREY: I have a comment and a  
8 discussion on the Board. I'm stuck still on this  
9 definition question. I'm looking at page 27, the  
10 ALJ's--I'm not going to read the whole thing. You  
11 know what I'm talking about, the recommendation.

12 UNIDENTIFIED SPEAKER: Get closer to the  
13 mike.

14 MS. FREY: I'm short.

15 MS. DOUGHTY: On page 27.

16 MS. FREY: On page 27, she writes kind  
17 of a summary of--she says that Living Rivers is  
18 arguing and that the executive secretary acted  
19 contrary to law by not requiring the ground water  
20 discharge permit to protect all water regardless of  
21 quantity and that that is not supported by law, she  
22 says. And she lays out first our definition of  
23 ground water. And then she calls back in this USGS  
24 definition of water--of underground--zone of  
25 saturation. And then she says that this is--the

1 drilling program illustrates the absence of the  
2 zone of saturation. So, ground water, zone of  
3 saturation, and drilling . . .

4 And so, to me, I am concerned that this  
5 includes our language change--something that is not  
6 part of our statute regulations, that this draws in  
7 kind of extra definition into that logic chain.  
8 So, I just wonder if anyone else on the Board--what  
9 other people's thoughts on the Board is about that.

10 MS. SMITH: I am--I will agree with  
11 you. And I don't know if we can get the slide  
12 back up. It's probably not important. But the  
13 Utah Code is actually more protective. So, I think  
14 that the ALJ, right or wrong, is portraying it  
15 broader than Utah Code, because the Utah Code says  
16 the wording you pointed out during--what is it?

17 MS. FREY: It's for aquifer, not for  
18 ground water. That doesn't fit in the chain. She  
19 starts with ground water.

20 MS. SMITH: She's talking about the zone  
21 of saturation, so I guess you have to make the leap  
22 that the zone of saturation is the same as aquifer,  
23 which--I Googled through this whole thing. And  
24 every site I found, they're the same. So, for me,  
25 I make that leap with her. But I think, like most

1 of our Utah statute, it's more restrictive than any  
2 Federal definitions.

3 MS. DOUGHTY: Go ahead, Leland.

4 MR. MYERS: I certainly agree with Rob.  
5 The definition of ground water probably could use  
6 some work, but I think that's separate from our  
7 decision here today. We as a Board could simply  
8 request staff to reconsider that rule to maybe make  
9 the definition better so that it would be well  
10 understood in a case like this. I would assume  
11 that's in our purview to do that so that we can  
12 improve what--the definition there. But using the  
13 given definitions that we've been given, we've been  
14 shown, and which are in the record, it seems to me  
15 that that leap of faith between zone of saturation  
16 and aquifer isn't that big of a leap.

17 Now, if we feel we need to be better  
18 defined, I think we should ask staff to do that.  
19 And in conjunction with that, I think that if we're  
20 concerned about the concept of de minimis, maybe we  
21 need to define what is de minimis so staff has a  
22 better handle on what constitutes de minimis. But  
23 given the general understanding of de minimis, I  
24 don't see for this case those being significant  
25 considerations.

1 MS. DOUGHTY: Greg.

2 MR. ROWLEY: Again, we're being asked  
3 whether or not we support administrative law  
4 judge's conclusions.

5 MS. DOUGHTY: Right.

6 MR. ROWLEY: And I have to concede  
7 partly that I had marked up close to where you were  
8 that she says, Fifth--it's on page 26--"Fifth,  
9 there is a re-opener in the 2008 decision that  
10 provides that if any ground water is discovered, a  
11 ground water permit may be required." And then  
12 talks about re-opener, and then goes on to say  
13 later in the paragraph same thing, ". . . if  
14 leachability tests after operations commence  
15 indicate that compounds may leach out of the  
16 tailings upon conduct with rain water." So, can I  
17 read into that that the administrative law judge's  
18 decision says that, yeah, there is re-openers there  
19 if the problems are discovered or if we find that  
20 tailings are saturated or ground water's impacted  
21 or ground water is on-site?

22 MS. McEWAN: Yeah, that's what she's  
23 saying. And you also have the laws and  
24 regulations.

25 MS. FREY: It says may, not shall.

1 THE REPORTER: Sorry. I can't hear  
2 you.

3 MS. DOUGHTY: Steven, do you have  
4 something else?

5 MR. SIMPSON: Yeah, I have a couple of  
6 comments. It was indicated in the ALJ's recommended  
7 decision--and the attorneys for U.S. Oil Sands  
8 referenced this, as well--Living Rivers has the--  
9 had the burden of showing that there was ground  
10 water and that there--initially there was ground  
11 water, and secondly, that there was impact. And  
12 I'm not sure that the evidence that we've seen  
13 indicates that there's any indication of ground  
14 water at all. There's some indication that there  
15 might be--and if we monitor it long enough, that we  
16 modify it some. But I don't see anything in the  
17 record that indicates at this point that there  
18 was--that ground water was--which was a concern for  
19 me.

20 UNIDENTIFIED SPEAKER: There's ground  
21 water in the area. If anybody wants to check out  
22 pictures--

23 MS. DOUGHTY: You've had your time,  
24 so . . .

25 MR. BUNKER: You ready for a . . .

1 MS. DOUGHTY: Yeah. You're ready for a  
2 motion. Does anybody have anything else before we  
3 make a motion? Is that what you want to do?

4 MR. BUNKER: Yeah, I'm going to--

5 MS. DOUGHTY: Any last comments or  
6 discussions that anybody would like to have before  
7 Clyde makes his motion?

8 MS. McEWAN: Do you want me to remind  
9 you again what your options are before you do that  
10 or--

11 MR. BUNKER: Yes.

12 MS. McEWAN: I said that a million  
13 times, but--

14 MR. BUNKER: I think that would be very  
15 appropriate.

16 MS. McEWAN: One more time. You can  
17 approve it in its entirety, meaning the whole  
18 memorandum, and recommend the order. You can  
19 approve it with modifications, but you'd need to  
20 tell what those modifications are specifically.  
21 You can disapprove it. Or you can remand it back  
22 to the ALJ for further proceedings, so . . .

23 MR. BUNKER: I will make a motion to  
24 accept it as it is.

25 MS. DOUGHTY: In its entirety?

1 MR. BUNKER: As--in its entirety.

2 MS. DOUGHTY: Okay. And a second?

3 MR. MYERS: (Raises hand.)

4 MS. DOUGHTY: All in favor say aye.

5 (Board members vote in the affirmative.)

6 MS. DOUGHTY: Can I see by hands just  
7 for the ayes, just to make sure that we have a  
8 majority?

9 (Board members raise their hands.)

10 MS. DOUGHTY: Nine in favor.

11 All opposed?

12 (Board members raise their hands.)

13 MS. DOUGHTY: Two opposed. And that's  
14 it.

15 MS. McEWAN: Can you read off the  
16 names, unless you got those, for, because I'll need  
17 to put that in the order. So, the ayes--

18 MS. DOUGHTY: Go through them and say  
19 whether or not--state your name and state whether  
20 or not you are an aye or nay when we go through  
21 the line.

22 MR. TUCKER: Jeff Tucker, aye.

23 MR. BUNKER: Clyde Bunker, yes.

24 MR. BATEMAN: Myron Bateman, yes.

25 MR. MYERS: Leland Myers, aye.

1 MR. SNARR: Dan Snarr, aye.

2 MS. DOUGHTY: Paula Doughty, aye.

3 MR. SIMPSON: Steve Simpson, aye.

4 MS. FREY: Merritt Frey, nay.

5 MR. MENSEL: Darrell Mensel, nay.

6 MR. PEACOCK: Neal Peacock, aye.

7 MR. ROWLEY: Greg Rowley, aye.

8 MS. DOUGHTY: Is there anything you'd  
9 like to say?

10 MS. McEWAN: I do--just to close up,  
11 that the order doesn't become final for purposes of  
12 doing a request for consideration or appeal until  
13 it is written, actually signed by the presiding  
14 officer, which in this case will be the chair. So,  
15 that task will go to me. And I will review the  
16 record and prepare that order. And then I will  
17 give it to the Chair for signature. So, once it  
18 goes out, that's when it becomes final.

19 MS. DOUGHTY: Thank you. And thank you  
20 for appropriately representing.

21 Okay. Next on the agenda, it's just  
22 actually the next meeting, which is scheduled for  
23 December 6.

24 MR. MYERS: Could I--

25 MS. DOUGHTY: Yeah, go ahead, Leland.



1 MR. MYERS: I would like to make a  
2 motion that we authorize staff--request staff to  
3 look at the ground water definition and the de  
4 minimis statute to make sure that we have it  
5 correct, and if it isn't, to make appropriate  
6 changes.

7 MS. FREY: I would second that.

8 MR. MENSEL: I would like to broaden  
9 that a little bit. I feel like part of the  
10 problem with voting today was the voting on a very  
11 specific thing. Everybody knows there's other  
12 elephants in the room that are not allowed to be  
13 discussed. But I think there really were some  
14 technical issues that were not addressed and were  
15 important to me. And I would like to at least have  
16 an opportunity to ask staff about that and get some  
17 kind of response, and maybe as part of this.

18 MR. MYERS: I can broaden my motion to  
19 include that, if you wish.

20 MS. DOUGHTY: Okay. Great. Thanks.

21 All in favor.

22 (Board members vote unanimously in the  
23 affirmative.)

24 MS. DOUGHTY: Opposed.

25 (No voice was heard.)

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(Proceedings concluded at 11:42 a.m.)